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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/513,015
Filing Date: February 25, 2000
Appellant(s): BLOCK ET AL.

Gina A. Bibby (Reg. No. 4,407)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 23, 2006 appealing from the Office action mailed August 31, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal except from those set forth by appellant.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The statement of the status of claims contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following evidence/references are relied upon by the examiner in the rejection of the claims under appeal.

1. US 6,070,191 Narendran et. al. May 30, 2000
2. US 6,023,762 Dean et. al. Feb. 8, 2000
3. Andresen, Daniel, et. al. in SWE: Toward a scalable WWW server on multi-computers, Dept. of Computer Science, Univ. of California, 1996, pages 1-7.
4. Lotus IBM: High Availability & Scalability with Dominos Clustering and Partitioning on AIX, Sept. 1998 (IBM hereafter).

(9) Grounds of Rejection

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 7-8 and 17-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Narendran (US 6,070,191) in view of Andresen, Daniel, et. al. in SWE: Toward a scalable WWW server on multi-computers, Dept. of Computer Science, Univ. of California, 1996, pages 1-7 (Andresen hereafter) in further view of IBM: High Availability & Scalability with Dominos Clustering and Partitioning on AIX, Sept. 1998 (IBM hereafter).

Regarding claim 1, Narendran teaches substantial features of the invention as claimed, including, a client (col 3/lines 39-51), a first server (14) (col 3/lines 60-61) and a plurality of servers ($S, \ldots S_N$) (col 3/lines 57-62, col 4/lines 17-19);

initiating a connection between a client unit and a first server (col 10/lines 41-44 or col 3/lines 63-64) one of said plurality of servers;

determining at said first server a location of a service ("session") on one of said plurality of servers (col 4/lines 44-55, col 6/lines 18-21 or col 15/lines 14-17); and

redirecting said client unit via said first server to a second server having said service ("session")(col 18/lines 38-42, 54-57, col 4/lines 19-21 or col 15/lines 14-25);

exchanging information between a first server and a plurality of servers (col 15/lines 35, col 16/line 5);

wherein said first and second servers can each provide said plurality of services (Narendran: abstract);

wherein said plurality of services comprise information (called "state maintenances") for a user of said client unit (Narendran: col 3/lines 49-56);

each of said plurality of sessions comprises a plurality of services requested by said client unit (Narendran: col 3/line 46-56, col 4/lines 49-52, 64-67);

wherein redirecting is executed in event of a server failure providing said service (col 12/lines 11-37 & col 12/line 58-col 13/line 10), redirecting client unit to a second server in response to a first server failure, thereby eliminating a single point of failure. The fault tolerant server system that provides redundant server having replicated services in event of failure, guarantees service availability in event of failure (see col 16/lines 36-33); however Narendran does not explicit teach where the plurality of server exchange information between themselves and continuing the services in event of a server failure, nor determining the most recently accessed session of a plurality of session on said plurality of servers;

Andersen teaches a plurality of servers exchanging information (page 3, left column paragraphs 2-3 and section 3.2 on page 3); wherein said first and second servers can each provide said plurality of services (Andersen: see sections 3.1- 3.2);

determining a most recent accessed session of a plurality of sessions on said plurality of servers, determining the location (e.g. IP address) of said most recently access session on one of said plurality of servers and redirecting client request to a second server of said plurality of servers having said most recently accessed session (Andersen: page 1, right column first paragraph); and where each session of said plurality of sessions comprise a plurality of services requested by said client (Andersen: page 1, right column 2-3rd paragraph); however the above-mentioned prior art fails to teach maintaining access to said accessed session while continuing said plurality of services to said client unit.

IBM discloses redirecting when a first server fails to respond to a client request, redirecting said client to a second server maintaining access to said accessed session while continuing said plurality of

services to said client, (see fail over on introduction on p. 1, redirecting in event of server failure see section 1.3.1 on p. 4, 6, transparent fail over feature can redirect request from an unavailable server to another available server of a cluster, see section 2.1.1 on p. 10, fail over to a backup on p. 14, redundancy against a single point of failure see section 2.2.1 on p. 16, redundant servers preventing a single point of failure section 2.2.2 on p. 17);

wherein when a server fails to respond to a client's request the request is fail over to another available server (see section 3.3.3.8 on p. 64); wherein synchronized redundant component (servers) transparently take over failed components and maintain data availability (section 1.2 on p. 2);

exchanging information among the plurality of server comprising state maintenance for a user client and used for redirecting user request (section 3.3.3 on p. 59-61);

redirecting is executed when said first server fails to respond with a message indicating its availability, e.g. a response to request, where a request includes a status request, i.e. a probe or a service request (p. 60, 64, 90, 141).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given the suggestion of Narendran for having a server redirect a client to an alternate server in event of failure by configuring redirecting server with the knowledge as to where the alternate servers having request service are located, to also configure all servers having this adaptive redirecting/scheduling capability as taught by IBM. (Motivation to combine Andresen with Narendran presented in previous action is incorporated by reference). Further, servers are configured with information exchange capabilities including periodically broadcasting network configuration information, awareness of the services present (i.e. leave or join the resource pool) in the network as well as their respective capabilities and current load. One ordinary skilled would be motivate to enhance Narendran's system with the scalability, fault tolerant that prevents a single point of failure in the network by providing access to services via an alternate network and single points of failure on server by providing replicas of services on server that provide a transparent fail over to an available service, providing high availability with a rapid, uncomplicated network configuration, as suggested by IBM.

Regarding claim 2, wherein said initiating comprises: said client unit broadcasting a message to a domain of server comprising said plurality of servers (Narendran: col 4/lines 10-12), and said first server responding to said message (Narendran: col 14/lines 48-51 or col 15/lines 14-25).

Regarding claim 3, said initiating is in response to a prior server failing (col 12/lines 12-65).

Regarding claim 4, said service ("session") is associated with an identifier ("token") (Narendran: col 4/lines 5-16).

Regarding claim 5, said determining of claim 1, comprises said first server sending a message to said plurality of servers, said message comprising said token (Narendran: col 6/lines 19-26 and col 15/lines 35-col 16/line 5); and said plurality of servers responding to said first server with service information associated with said identifier (Narendran: col 6/lines 19-26 and col 15/lines 35-col 16/line 5) and determining location (e.g. IP address) at said first server of said session on one of said plurality of servers (Andresen: left column, 1st par., page 1), or where determining location further comprises receiving a message from said second server of an availability of said second server for having said session (Narendran: directory of services see col 15/lines 61-col 16/line 5).

Regarding claim 7, securing messages between said client unit and said plurality of servers (IBM: security p. 11).

Regarding claim 8, wherein said securing is performed with a keyed hash signature. Official *Notice (see MPEP § 2144.03 Reliance on "Well Known"* Prior Art) is taken that keyed hash signature was old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include this feature because it is a common authentication scheme which employs authentication tokens to improved security system against eavesdropping, dictionary attacks, and intrusion into stored password lists.

Regarding claim 17, said information exchanged between said pluralities of servers comprises a description of an information regarding devices or the presence of devices on the network also called network configuration (i.e. network topology) of said plurality of servers (Narendran: col 6/lines 19-21).

Regarding claim 18, updating status in said network topology on a relationship between a connectivity of said client unit and said second server (IBM: topology services section 2.1. 4 on p. 12, section 3.3.3 status updates on p. 59-61).

Regarding claim 19, this limitation is substantially the same as redirecting limitation on claim 1, same rationale of rejection is applicable.

Regarding claims 20 and 23, wherein said client unit comprises a ("thin client unit" and "thin client session" and a "stateless device") i.e. a computing device (Narendran: col 3/lines 49-56).

Regarding claim 21, wherein said session comprises a service ("thin client session") that services client's request (Narendran: abstract).

Regarding. claim 22, maintaining said service "session" persistently by said plurality of servers, i.e. stored or cached (Narendran: col 4/lines 26-29).

Regarding claim 24, said determining said location at said first server of said session on one of said plurality of servers comprises receiving a message from said second server of an availability of said second server for having said session (Narendran: directory of services see col 15/lines 61-col 16/line 5).

Regarding claim 25, wherein said token can identify a plurality of sessions (Narendran: col 4/line 10-15).

Regarding claim 26, plurality of server communicates with each other to support awareness of the server available in the group or cluster (IBM: topology services section 2.1. 4 on p. 12, section 3.3.3 status updates on p. 59-61).

Regarding claim 27, pluralities of server are distributed (IBM: distributed redundant servers (i.e. no master) for implementing failover in event of a server failure (i.e. eliminating a single point of failure) section 2.2.2 on p. 17).

3. Claim 28 is rejected under 35 U.S.C. §103(a) as being unpatentable over Narendran-Andresen in view of IBM in further view of DEAN et. al. U.S. Patent No. 6,023,762 (Dean hereafter).

Regarding claim 28, comprises limitations substantially the same as claim 1, same rationale of rejection is applicable,

exchange information (e.g. load and/or availability) between a pluralities of servers via a process (called self-discovery) enabling the awareness of each other in the resource pool of server (IBM: topology awareness services section 2.1. 4 on p. 12, section 3.3.3 status updates on p. 59-61);

determining at a first server of a plurality of server, a most recently accessed session of a plurality of session provided by a plurality of server and redirecting a client request via said first server to a second

server of said plurality of server having determined most recently accessed session (Andresen: page 1, right column first paragraph);

although prior art teaches establishing a connection between a client unit and any one of said plurality of servers for sending a request and receiving a response thereto including determining a most recently accessed session and redirecting said client unit to said most recently accessed session, Andersen does not teach relating, correlating or mapping a plurality of services with a token associated with a client's unit.

Dean teaches a system/method related to networked computer systems as shown in Fig. 1, including a client unit (108) sending over an established connection a request for a plurality of services ("sessions") on a plurality of services providers (106) ("servers") (col 3/lines 37-43, col Mines 59-67) by inserting a ("token") smart card (110) in said client unit (col Mines 45-55, col 7/lines 1-21, 62-67);

directing said client unit at a first server (107 of Fig. 2), said first server including a data storage means for identifying a plurality of session types associated with said token which the user of the client unit has access to (col 2/lines 8-12, 24-42, col 5/lines 40-47) using stored information on table 401 (col 8/lines 30-32, 42-50, 58-61, col 9/lines 1-10, 47-61);

It would have been obvious at the time the invention was made given the suggestion of Andersen for making services available in a multiple server computing environment efficiently including disclosed distributing techniques for redirecting client's request adaptively to the changes in the network configuration including the distribution of the scheduling means to overcome the disadvantages of prior art system to consider Dean's teachings for distributing client's request to multiple servers in a secure manner. Motivation to combine the teachings of Dean with Andersen will be complement Andersen first/redirecting server configured with proxy functionalities configure with either redirection or forwarding techniques, with the proxy functionalities of the redirecting agent in the Dean system both making services available in a multiple server computing environment. One would be motivated to implement these components for accessing a plurality of sessions on a plurality of servers for accessing corporate wide area network or Intranet services behind a proxy exemplified by Andersen as a firewall to protect said plurality of sessions on said plurality of server from unauthorized users whose authentication is augmented by smart card technology.

(10) Response to Arguments

4. Regarding claims 1-5, 7-8 and 17-27 rejected as being unpatentable over Narendran in view of Andresen in further view of IBM, it is argued (p. 6-8 of Arguments section VII of brief) that the applied references do not teach claim limitation as recited. Specifically, "determining a most recently accessed session of a plurality of sessions on a plurality of servers", because according to Appellant's interpretation of the Andresen et. al. reference, the "mapping of most recently accessed host computers" has been incorrectly equated to the claimed clause "determining a most recently accessed session".

In response to the above-mentioned argument, Appellant's interpretation of the applied reference has been carefully considered. The interpretation of the claimed term "session", as previously stated has been interpreted inlight of the specification (see MPEP §2111/2106).

In this case, claimed term "session" means a representation of services (p. 22, lines 5-11), a service is a program that provides some function to the user (p. 24, lines 9-12) or a process that provides output data and responds to user request and input (p. 19, lines 3-4), services makeup a session (p. 22, lines 15-16), wherein a service producer may be a proxy, specifically, "The service producing computer system connect directly to the DTUs through the interconnect fabric. It is also possible for the service producer to be a proxy for another device providing the computational service, such as a database computer in a three-tiered architecture, where the proxy computer might only generate queries and execute user interface code." (see page 19, lines 17-21).

The portion of the Andresen reference which Appellant relies on as the basis of his/her argument, has been carefully reviewed. The cited portion discloses:

"Numerous other initiatives to create high-performance HTTP servers have been reported. The Inktomi server at UC Berkely is based on the NOW technology [BR96]. NCSA [KBM94] has built a multi-workstation HTTP server based on round-robin domain name resolution (DNS) to assign request to workstations. The round robin technique is effective when HTTP requests access HTML information relatively uniform size and the load and computing powers of workstations are relatively comparable. Our assumption is that the computing powers of workstations and parallel machine resources can be heterogeneous. They can be used for other computing needs, and can leave and join the system resource pool at any time. Thus scheduling techniques which are adaptive to the dynamic change of system load and configuration are desirable. The DNS in a round-robin fashion cannot predict those changes. Another weakness of the technique is the degree of name caching which occurs. DNS caching enables a local DNS system to cache the name-to-IP address mapping, *so that most recently accessed hosts can quickly be mapped. The downside is that all requests for a period of time from a DNS server's domain will go to a particular IP address."*

As mentioned above, in accordance to the invention's definition of the claimed term "session" as meaning a representation of services (specs page 22, lines 5-11), a service is a program that provides some function to the user (specs page 24, lines 9-12) or a process that provides output data and responds to user request and input (page 19, lines 3-4), wherein a service producer may be a computer system acting as a proxy (specs page 19, lines 17-21).

The multi-workstation HTTP server in the Andresen reference is service producer associated with a session, i.e. a representation of services that provide some functions to the user or a process that provides output data (e.g. HTML information) and response to user request and input (e.g. HTTP requests).

Thus, in the Andresen reference the multi-workstation HTTP server based on domain name resolution (DNS) to assign request to workstations, where the round robin technique is effective for HTTP requests to access HTML information, as stated by the reference, is a service

producer of a representation of services, i.e. a session that provide HTML information in response to users HTTP requests.

The portion of the Andresen reference which Appellant relies on for the basis of his/her argument, as mentioned above states: "DNS caching enables a local DNS system to cache the name-to-IP address mapping, so that most recently accessed hosts can quickly be mapped. The downside is that all requests for a period of time from a DNS server's domain will go to a particular IP address."

Thus, *the most recently accessed host* quickly mapped by local cache DNS system are host *that service request* for a period of time, wherein *all request for a period of time from a DNS server's domain will go to* a particular IP address.

[AS BEST UNDERSTOOD], the DNS caching enables a local DNS system to cache the name-to-IP address mapping, so that <u>*most recently accessed hosts*</u> to which <u>*all requests for a period of time from a DNS server's domain will go to a particular IP address.*</u>

The claimed term "session" has <u>not</u> been equated to a "host", as argued but to a service provided by a host, the "most recently accessed session", has been interpreted as the most recently accessed host providing a service to users, i.e. a session, more particularly, the most recently accessed "session" meaning a representation of services provided by a host explicitly servicing request HTTP requests to access HTML information, as stated by the reference.

5. Regarding claims 1-5, 7-8 and 17-27 rejected as being unpatentable over Narendran in view of Andresen in further view of IBM, it is argued (p. 8-9 of Arguments section VII of brief) that the applied references explicitly discourage one another. Specifically, the teachings of Andresen et. al. are explicitly discouraged by Narendran et. al., where according to Appellant, Narendran with respect to the SWEB approach of Andresen, states that "Although this system

alleviates the problem of DNS name caching through the use of server redirection, the increase in throughput is still limited by the dynamic redirection and the need to go over the network to fetch documents. Furthermore, failures are still a problem due to the use of DNS name caching." (see Narendran: column 1, lines 45-column 2, line 4).

In response to the above mentioned argument, Appellant's interpretation of the applied reference(s) has been fully considered. In accordance with the MPEP: II. WHERE THE TEACHINGS OF THE PRIOR ART CONFLICT, THE EXAMINER MUST WEIGH THE SUGGESTIVE POWER OF EACH REFERENCE (see MPEP 2143.01). The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts. *Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another.* In re Young, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991).

In this instance, the Narendran patent opined that the ANDRESEN'S technique has *limited increase in throughput by the dynamic redirection and the need to go over the network to fetch documents*). However, the Narendran patent did not test the Andresen SWEB system technique under comparable conditions because Narendran did not use Andresent's servers and network bandwidth conditions.

Specifically, Narendran does not discuss and actually measure throughput in the Andresen's technique when the documents are fetched over the network. Narendran does not discuss an actual measured throughput in the Andresen's technique when the documents are fetched over the network, particularly under comparable conditions because Narendran did not

use Andresen's a web server running on a Meiko CS-2 distributed memory system machine and network workstations (NOW) such as SUN and DEC machines, as in the SWEB system in Andresen's technique (page 1, right column).

Narendran does not measure throughput in the Andresen technique under comparable conditions because Narendran does not measure throughput using a scalable web server running on a Meiko CS-2 distributed memory system machine and a network workstations (NOW) such as SUN and DEC machines, as in the SWEB system in Andresen (page 1, right column).

Narendran does not discuss an actual measured throughput in the Andresen's technique when the documents are fetched locally and without the need to go over the network. Narendran does not discuss an actual measured throughput in the Andresen's technique when the documents are fetched over the network, particularly under comparable conditions because Narendran did not use Andresen's web servers running on a Meiko CS-2 distributed memory system machine and a network workstations (NOW) such as SUN and DEC machines, as in the SWEB system in Andresen (page 1, right column).

FURTHERMORE, Narendran did not measure throughput to accurately and/or quantifiably determine that the increase in throughput was still limited by the dynamic redirection and the need to go over the network to fetch documents, under conditions comparable to the Andresen SWEB technique/system, particularly consisting of six Meiko CS-2 distributed memory machine nodes, where each node has a scalar processing unit, a 40 MHZ SuperSpare chip) with 32MB of RAM running SOLARIS 2.3, where each of the six CS-2 nodes were connected to a dedicated 1GB hard drive on which the test files reside. Disk service was available to all other nodes via NSF mounts these nodes were connected via a modified fat-tree network with a peak bandwidth of 40MB/s and/or a second test-bed which was a network of 4

SparchStation LX's running SOLARIS 2.4 connected via standard 10MB/s Ethernet (page 5, right column)

HENCE, *the teachings of these two prior art references which conflict, according to Appellant, have been weigh with respect to the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another* (In re Young, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991).

In this case, Narendran has not quantifiable/accurately measure throughput when different files size are remotely fetched, as disclosed in the Andresen SWEB/technique particularly under comparable condition as those in the Andresen SWEB system, such as under the same network bandwidth conditions as those in the Andresen SWEB system, e.g. a modified fat-tree network with a peak bandwidth of 40MB/s and/or a second network such as standard 10MB/s Ethernet (page 5, right column), as in the Andresen SWEB system.

In this case, Narendran does not quantifiably/accurately measure that "the increase in throughput is still limited by the dynamic redirection and the need to go over the network to fetch documents" and/or perform these measurements under comparable conditions, such as those disclosed in the Andresen SWEB/technique, such as under the same network bandwidth conditions as those in the Andresen SWEB system, consisting of a Meiko CS-2 distributed memory machine, where each node has a scalar processing unit, a 40MHZ SuperSpare chip) with 32MB of RAM running SOLARIS 2.3, particularly using six CS-2 nodes, each of which was connected to a dedicated 1GB hard-drive on which the test files reside, disk service was available to all other nodes via NSF mounts and/or using a second test bed was a network of 4 SparchStation LX's (see Andresen page 5, right column)

Appellant's argument that the NARENDRAN patent discourages the teachings of Andresen because Narendran states with respect to Andresen's SWEB approach that the increase in throughput is still limited by the dynamic redirection and the need to go over the network to fetch documents has been fully considered. T*he power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another has been considered.*

The *degree to which the argued Narendran patent discredits the SWEB approach in the Andresen article has not quantifiably/accurately measure* throughput to determine that *the increase in throughput is still limited by the dynamic redirection and the need to go over the network to fetch documents,* when measured under comparable conditions, such as those disclosed in the Andresen SWEB/technique, such as under the same network bandwidth conditions and the same processing and storage devices as those in the Andresen SWEB system, as specifically discussed above.

Narendran's seem to improve the deficiencies noted with respect to teaching Andresen's SWEB. Specifically, Narendran's invention provides *improved* server-side techniques for processing client requests received over the Internet and other communication networks, *without the problems associated with the above-described conventional approaches* (column 2, line 55 to column 3, line 11). Specifically, Narendran solve the failures (e.g. server failures) *problems by utilizing replicate copies of documents, wherein if a given document server fails,* the redirection server can use recomputed redirection probabilities to ensure that the load can be approximately balanced among the remaining servers without any need for moving documents among them, this according to Narendran allows for graceful degradation of service in the event of server failure.

Thus, the Narendran's invention which provides *improved* server-side techniques for processing client requests received over the Internet and other communication networks, *without the problems associated with the above-described conventional approaches, provides a solution to server failures which does not involve discourage*s the use of a DNS cache.

Narendran's seem to improve the deficiencies noted with respect to teaching Andresen's SWEB. Specifically, Narendran's invention provides *improved* server-side techniques for processing client requests received over the Internet and other communication networks, *without the problems associated with the above-described conventional approaches* (column 2, line 55 to column 3, line 11). Specifically, Narendran addresses the throughput limitation by teaching an illustrative embodiment that utilizes HTTP redirection and a load balancing algorithm (see column 2, lines 55-column 3, line 11), including and a round-robin DNS server (12) and a pair of redirection servers 14-1 and 14-2, where the DNS server 12 maps a domain name in a client request to an IP address of the appropriate server in the system 10 (column 3, lines 57-column 4, line 15), balancing the load across the redirection servers (column 6, lines 18-27). Furthermore, documents are not required to be fetch over the network by the use of local servers, this aspect is taught by Andresen (page 3, right column) as well as Narendran (column 4, lines 16-40).

The failures due to the use of DNS name caching in the Andresen SWEB system discussed by Narendran (see Narendran: column 1, lines 45-column 2, line 4), seem to be *solve/addressed by Andresen himself.* Specifically, the architecture of SWEB uses a distributed approach to prevent single point of failure cause by the central distributor's approach which makes the entire system more vulnerable. In the SWEB architecture's distributed scheduler, the user requests are first evenly routed to SWEB processors via the DNS rotation, as shown in Figure 2, where the DNS rotation on available workstation network IDs is in a round-robin

fashion, where this functionality is available in current DNS systems, where the major advantages of this technique are simplicity, ease of implementation, and reliability [KBM94]. The DNS assigns the requests without consulting dynamically-changing system load information. Then SWEB conducts a further assignment of requests. Each processor in SWEB contains a scheduler and those processors collaborate with each others to exchange system load information. After a request is routed to a processor via DNS, the scheduler in that processor makes a decision regarding whether to process this request or assign it to another processor (see page 3, right column).

Narendran teaches that throughput may be increased by balancing the load across the servers through multiplexing via a round-robin DNS server (12), particularly, his proposed embodiment includes the round-robin DNS 12 of server system 10 which multiplexes client requests among the redirection servers 14-1, 14-2 such that a single redirection server does not become a bottleneck, suggesting other types of DNS techniques may also be used (column 4, lines 41-67).

6. Regarding claim 28 rejected as being unpatentable over Narendran-Andresen in view of IBM in further view of DEAN et. al. (US 6,023,762), it is argued (p. 9-10 of Arguments section VII of brief) that the applied references do not teach claim limitation as recited. Specifically, "determining a most recently accessed session of a plurality of sessions on a plurality of servers", because according to Appellant's interpretation of the Andresen et. al. reference, the "mapping of most recently accessed host computers" has been incorrectly equated to the claimed clause "determining a most recently accessed session".

In response to the above-mentioned argument, the argument(s) upon which Appellant

relies on are substantially the same as those presented with respect to claim 1, as indicated by Appellant (p. 10, lines 1-4), thus same rationale and/or response to arguments with respect to claim 1 is/are applicable.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

BEATRIZ PRIETO
PRIMARY EXAMINER

bp
July 10, 2006

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